

SOKOLOV, V.A.; KULAGINA, I.A.; PCHELINTSEVA, G.M., red.; VLASOVA, N.A.,
tekhn.red.

[Radioisotope of calcium Ca^{45}] Radioaktivnyi izotop kal'tsiia -
 Ca^{45} . Moskva, Izd-vo gos.kom-ta Soveta Ministrov SSSR po
ispol'zovaniu atomnoi energii, 1960. 17 p.

(NIRA 14:4)

(Calcium--Isotopes)

ZHERNOV, V.S.; MAMIKONYAN, S.V.; PCHELINTSEVA, G.M., red.; VLASOVA,
M.A., tekhn.red.

[New radiometric and spectrometric instruments] Novye radio-
metricheskie i spektrometricheskie pribory. Moskva, Izd-vo
Gos.kom-ty Soveta Ministrov SSSR po ispol'zovaniyu atomnoi
energii, 1960. 20 p. (MIRA 14:4)
(Spectrometer) (Radiometer)

SIVINTSEV, Yuriy Vasil'yevich; PCHELINTSEVA, G.M., red.; VLASOVA, N.A.,
tekhn.red.

[Environmental irradiation of the human body] Pionovoe obluchenie
chelovecheskogo organizma. Moskva, Izd-vo Gos.Kom-ty Soveta
Ministrov SSSR po ispol'zovaniyu atomnoi energii, 1960. 93 p.
(MIRA 14:3)

(RADIATION--PHYSIOLOGICAL EFFECT)

DYMKOV, Yuriy Maksimovich; PCHELINTSEVA, G.M., red.; MAZEL', Ye.I.,
tekhn.red.

[Uranium mineralization of the Erzgebirge] Uranovaya minerali-
zatsiya Rudnykh gor. Moskva, Gos.isd-vo lit-ry v oblasti atomnoi
nauki i tekhniki, 1960. 99 p. (MIRA 14:3)
(Erzgebirge--Uranium ores)
(Mineralogical chemistry)

PCHELINTSEVA, G.M., red.; VLASOVA, N.A., tekhn.red.

[Sanitary regulations covering work with radioactive substances and sources of ionizing radiation] Sanitarnye pravila raboty s radioaktivnymi veshchestvami i istochnikami ioniziruyushchikh izlucheni. Moskva, Gos.isd-vo lit-ry v oblasti atomnoi nauki i tekhniki, 1960. 117 p. (MIRA 14:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii.
(Radioactive substances--Safety measures)

BOCHVAR, A.A., akademik, red.; YEMEL'YANOV, V.S., red.; ZVEREV, G.L., red. toma; IVANOV, A.N., red. toma; SOKURSKIY, Yu.N., red. toma; STERLIN, Ya.M., red. toma; PEREVERZEV, V.V., red.; PCHELINTSEVA, G.M., red.; MAZEL', Ye.I., tekhn. red.

[Transactions of the International Conference On The Peaceful Uses of Atomic Energy] Trudy Vtoroy mezhdunarodnoy konferentsii po mirnomu ispol'zovaniyu atomnoy energii, 2d, Geneva, 1958. Izbrannye Doklady inos rannyykh uchenykh. Moskva, Izd-vo Glav. uprav. po ispol'zovaniyu atomnoi energ. pri Sovete Ministrov SSSR. Vol.6. [Nuclear fuel and reactor materials] IAdernoe goriuchee i reaktornye materialy. Pod obshchei red. A.A.Bochvara i Emel'ianova V.S. 1959. 702 p. (MIRA 14:10)

1. International Conference on The Peaceful Uses of Atomic Energy. 2d, Geneva, 1958. 2. Chlen-korrespondent AN SSSR (for Yemel'yanov). (Nuclear fuels) (Nuclear reactors—Materials)

INIKHOV, Georgiy Nikolayevich; PCHELINTSEVA, G.M., red.; POPOVA,
S.M., tekhn. red.

[Alpha, beta, gamma, and neutron emitters for checking
and calibrating dosimetric and radiometric apparatus]
Al'fa-, beta-, gamma- i neitronnye izluchateli dlia kon-
trolia i graduirovki dozimetricheskoi i radiometricheskoi
apparatury; spravochnik. Moskva, Gosatomizdat, 1963. 76 p.
(MIRA 16:7)

(Radiation—Measurement)

Pchelintseva, G.M.

PHASE I BOOK EXPLOITATION

SOV/5727

USSR. Ministerstvo zdavookhraneniya

Pravila perevozki radioaktivnykh veshchestv (Rules for the Transportation of Radioactive Substances) Moscow, Gosatomizdat, 1961. 64 p. Errata slip inserted. 30,000 copies printed.

Sponsoring Agency: Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii. Ministerstvo zdavookhraneniya SSSR.

Ed.: G. M. Pchelintseva; Tech. Ed.: N. A. Vlasova.

PURPOSE: This book is intended for institutions, organizations, and enterprises of ministries, departments, and sovnarkhozes concerned with the transportation, storage, and uses of radioactive substances.

COVERAGE: The book contains new shipping specifications for packaged radioactive substances set up in accordance with "Sanitary Regulations for Work With Radioactive Substances and Ionizing Radiation Sources" No. 333-60, and 1960 international recommendations. The new specifications, approved December 26-27, 1960, by N. Nikitin, Chief State Sanitation Inspector of the USSR,
Card 1/6

ZHERNOV, V.S., red.; SHIRSHOV, D.P., red.; PCHELINTSEVA, G.M., red.;
BORTSOVA, A.F., red.; VLASOVA, N.A., tekhn. red.

[Units of new apparatus for the investigation of nuclear radiation]
Uzly novoi apparatury dlia issledovaniia iadernykh izlucheni; na-
uchno-tekhmicheskii sbornik. Moskva, Gos. izd-vo lit-ry v oblasti
atomnoi nauki i tekhn., 1961. 149 p. (MIRA 14:11)
(Radioactivity)

PERINTSEVA, G.T.

DECEASED
c1960

1961/I

See Ilc

GEOLOGY

MISHEL', E.; PCHELINTSEVA, M. [translator]; SIMONOV, P.V.

Doctor Delgado's experiments. Nauka i zhizn' 29 no.4:84-87 Apr
'62. (MIRA 15:7)

(BRAIN--RESEARCH)

BIRYUKOV, N.O.; ZHURKINA, E.G.; KRUG, Ye.K.; KULEMIN, V.I.;
PCHELINTSEVA, M.D.; KHRAMOY, A.V.; SHORINA, A.A.;
~~SEMENOVA, A.A.~~, red.izd-va; SHEVCHENKO, G.N., tekhn.red.

[Russian-English-German-French dictionary of terms on
automatic control] Russko-anglo-nemetsko-frantsuzskii slovar'
terminov po avtomaticheskomu upravleniiu. Pod red. A.V.
Khramogo. Moskva, Izd-vo AN SSSR, 1963. 229 p.

(MIRA 16:9)

1. Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.
(Automatic control--Dictionaries)
(Russian language--Dictionaries--Polyglot)

POHELINTSEVA, T.P., aspirant; SALIKOV, M.I., prof., nauchnyy rukovoditel'
raboty

Effect of the reaction of the culture medium and temperature on
the growth and development of Trichoptyons. Veterinariia 41
no.3:29-30 Mr '65. (MIRA 18:4)

1. Ryazanskiy sel'skokhozyaystvennyy institut.

POHELINTSEVA, T.V.; FLESHANOVA, R.A.

Effect of immunization with staphylococcal antigen on the condition of newborns and infants during the first two months of life. Akush. i gin. 40 no.1s40-43 Ja-F '62.

(MIRA 17:8)

1. 2-ye akusherakoye otdeleniye (zav. - prof. A. Khaskin)
i detskoye otdeleniye Instituta akusherstva i ginekologii
(dir. - prof. M.A. Petrov-Maslov) AMN SSSR, Leningrad.

PECHLINTSEVA, V.N., snayper Leningradskogo fronta, Geroy Sovetskogo Soyuz, gvardii mayor; GONCHARENKO, G.I., gvardii podpolkovnik, redaktor; ZAKHAROVA, N.P., tekhnicheskii redaktor

[A sniper's combat experience] Iz boevogo opyta snaipera. Moskva, Voen. izd-vo Voen. Ministerstva SSSR, 1952. 54 p. (MLRA 9:8)
(Snipers)

PCHELINTSEVA, V.V.

~~Very faint text~~

Some diffuse star clusters. Astron. tsir. no. 159:14-15 My '55.
(MIRA 8:12)

1. Gosudarstvennyy astronomicheskiy institut imeni Shtern-
berga (Moscow) (Stars--Clusters)

POCHEL'NIKOV, A.P.; KASEV, V.V.

Formation of monovalent indium during the anodic dissolution of an indium electrode. Zashch. met. 1 no.5:482-480 S-O '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni L.Ya. Karpova, Moskva.

SOV/99-58-11-3/9

AUTHOR: Tsitovich, N.G., Pchelkin, A.D., Engineers

TITLE: Continuous-Action Concrete Packing Machines
(Betonoukladchiki nepreryvnogo deystviya)

PERIODICAL: Gidrotekhnika i melioratsiya, 1958, Nr 11, pp 20 - 23 (USSR)

ABSTRACT: The Uzbekskiy institut proyektirovaniya vodokhozyaystvennykh ob'yektov (Uzgiprovodkhoz) (The Uzbek Institute for the Planning of Hydraulic Projects) developed in 1958 a device for the mechanical lining of canals with concrete. Depending on the dimensions of the canals, 3 types were designed: 1) a mobile device for cementing small canals with perimeters up to 5-6 m; 2) a sliding sheathing for cementing slopes of big canals up to 5 m wide; 3) a mobile device for cementing the bottom of big canals with sections up to 5 m. The authors give detailed descriptions of these devices and their operating speeds. There are 3 photos.

Card 1/1

TSITOVICH, N.G., inzh.; PCHELKIN, A.D., inzh.

Continuous concrete paver. Gidr. 1 mel. 10 no.11:20-23 H '58.
(MIRA 11:12)

(Pavements, Concrete)

MITYASHKIN, D.Z., kand. tekhn. nauk; PCHILKIN, A.I., inzh.

Investigations in the field of electrochemical dimensional
shaping of metals. Vest. mashinost. 45 no. 12:78-81 D '65
(MIRA 19:1)

NEPOROZHNIY, P.S.; GRINEVA, N.P., inzh., red.; GITLEVICH, A.D.,
inzh., red.; PCHELKIN, B.A., inzh., red.; SLOBODKINA,
G.N., red.

[Power engineering and construction of power systems in
India] Energetika i energeticheskoe stroitel'stvo Indii.
Moskva, Energiia, 1965. 108 p. (MIRA 18:9)

PCHELKIN, G.A.; GAVRISH, Yu.Ye.

Deformations of buildings in the city of Uzhur. Stroi. v raison. Vost.
Sib. i Krain. Sev. no.1:56-63 '61. (MIRA 17:11)

PCHELKIN, G.A.

Heat engineering calculations for and laying of pipelines in
permafrost in the Noril'sk region. Stroi. v raion. Vost. Sib.
k Krain. Sev. no. 1-89-109 '61. (MIRA 17:11)

PCHELKIN, G.A.

Designing plumbing for permafrost soils. Stroi.v raion.Vost.Sib.
1 Krain.Sev. no.2:55-73 '62. (MIRA 18:7)

SELYANIN, V.G., kand.tekhn. nauk; PCHELKIN, G.D., inzh.; SERBIN, V.I., inzh.

Effect of various forms of transportation in open pit mines on the
volume of overburden along the periphery of the pit. Gor.zhur.
no.4-20-21 Ap '64. (MIRA 17:4)

Dnepropetrovskiy gornyy institut (for Pchelkin. 2. Trest po
proyektirovaniyu zhelezorudnykh predpriyatiy Krivorozhskogo
basseyna (for Serbin).

SELYANIN, V.G., kand. tekhn. nauk; PCHELKIN, G.D., inzh.; NAPADAYLO, V.A.,
inzh.

Efficient conditions for using sliding ramps. Gor. zhur. no.4:21-
22 Ap '65. (MIRA 18:5)

1. Dnepropetrovskiy gornyy institut.

POLYAKOV, N.S.; SEL'YANIN, V.G., kand.tekhn.nauk; TARTAKOVSKIY, B.N., inzh.;
PCHELKIN, G.D., inzh.

"Modern strip mine transportation" by M. V. Vasil'ev. Reviewed by
N. S. Poliakov and others. Gor. zhur. no.11:78-79 N '61.
(MIRA 15:2)

1. Dnepropetrovskiy gornyy institut. 2. Chlen-korrespondent AN
USSR (for Polyakov).

(Mine haulage) (Vasil'ev, M.V.)

POCHEL'KIN, G.I.

Standard for electrotechnical textolite. Standartizatsiia 24
no.3:40-41 Mr '60. (MIRA 13:6)
(Plastics)

SUBBOTIN, A.N., inzh.; PCHELKIN, G.D., inzh.

Efficient use of heavy-duty semitrailers in open-pit mines. Izv.
vys. ucheb. zav.; gor. zhur. 5 no.10:111-114 '62. (MIRA 15:11)

1. Institut gornogo dela Ural'skogo filiala Akademii nauk SSSR (for Subbotin). 2. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema (for Pchelkin). Rekomendovana kafedroy otkrytykh rabot Dnepropetrovskogo gornogo instituta.
(Mine haulage)

25(6)

S/028/60/000/03/013/029
D041/D006

AUTHOR: Pchelkin, G.I.

TITLE: On the Standard for Electrical Engineering Textolite

PERIODICAL: Standartizatsiya, 1960, Nr 3, pp 40-41 (USSR)

ABSTRACT: The author discusses the economic importance of plastics and the lack of engineering information on them. The
✓ "ST textolite" plastic has a glass fiber fabric filling,
and the "GOST 2910-54" standard requires alkali-free
"ESTB" and "ASTM" glass fabric for it. The Vsesoyuznyy
elektrotekhnicheskiy institut im. V.I. Lenina (All-
Union Electrical Engineering Institute imeni V.I. Lenin)
requires that "E" or "AS" glass fabric, as per "GOST
8481-57" be used, while the producer of the textolite
uses yet another glass fabric - the "E", "A" and "T"
as per the standard mentioned plus "SSTE-6" as requir-
ed by the "BTU 1329-6" specifications and approved by

Card 1/2

MIKHAYLOV, V.P., kand. tekhn. nauk, dots.; BOLKUNOV, A.A., st.
prepodavatel', otv. red.; FCHELKIN, G.I., st. prepodavatel',
red.; ZABLUDEA, A.A., assistant, red.

[Lectures on descriptive geometry] Lektsii po nachertatel'noi
geometrii. Novocherkassk, Red.-izdatel'skii otmel NPI, 1964.
140 p. (MIRA 17:9)

1. Novocherkassk. Politekhnichestvii institut. Kafedra nachertatel'noy geometrii i grafiki. 2. Kafedra nachertatel'noy geometrii i grafiki Novocherkasskogo politekhnicheskogo instituta (for Mikhaylov).

L 6837-6: EWT(1)/EWA(5) Pa-4 JK

ACCESSION NR: AP4039934

S/0016/64/000/005/0028/0033

AUTHOR: Zhmayeva, Z. M.; Petrishcheva, P. A.; Pchelkina, A. A.

TITLE: Q fever bloodsucking tick carriers in various landform zones of the USSR

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 5, 1964, 28-33

TOPIC TAGS: Q fever, rickettsial disease, Q fever natural focus, desert focus, steppe focus, forest focus, tick carrier, Ixodidea

ABSTRACT: The natural foci of Q fever in southeast Kara-Kum, northern Kazakhstan, Altai Kray, and the Kirovskaya Oblast of the RSFSR after many years of investigation were found to be of three types: desert, steppe, and forest. Desert foci are maintained by 17 species of Ixodidea and Gamasoidea and 9 species of vertebrates. Marked stability of the pasture-cave and nest-burrow tick types in desert foci is ensured by their high and constant numbers, prolonged seasonal activity, wide territorial distribution, and protection of the causative agent within their organism during life and from

Card 1/

L 6837-65

ABSTRACT ON NR: A71039934

generation to generation. Steppe foci revealed 4 species of Ixodidea with *D. marginatus*, the main carrier of Q fever. The latter species multiplies rapidly and has extensive alimentary contacts with vertebrates. Fifteen species of animals were also found involved in Q fever epizootic in steppe foci. The circulation period for the causative agent in steppe foci is shorter than in desert foci due to a shorter period of warm weather and consequently less tick activity. Forest foci are structurally similar to steppe foci with only a very limited number of tick species and vertebrates participating in causative agent circulation. The circulation period for forest foci is even shorter than in the steppe. The principle Q fever carriers in forest foci are the *Ixodes persulcatus* ticks characterized by a long life cycle, high numbers, and a wide circle of hosts. In Q fever foci investigations, landform zone boundary areas are of particular importance because they contain a greater variety of tick and vertebrate species carrying Q fever. Also of interest in this respect is the abundant plant and animal life of river beds and large relief depressions. Orig. art. has: 1 table and 2 figures.

Card 2/3

L 6837-68

ACCESSION NR: APL039934

ASSOCIATION: Institut epidemiologii i mikrobiologii im. Gamalei AMN
SSSR (Epidemiology and Microbiology Institute AMN SSSR)

SUBMITTED: 05Feb64

ENCL: 00

SUB CODE: LS

NR REF SOV: 010

OTHER: 002

Card 3/3

APANAS'YEV, A.P.; ANUCHIN, V.G.; VINOGRADOV, K.V.; GARANINA, M.M.;
GILEROVICH, M.M.; DUBROVSKIY, Ye.P.; YEVSTIGNEYEV, A.A.; IOKHVIN,
H.R.; KALMYKOV, P.M.; KRENGEL', I.TS.; LOSEV, I.G.; MAYEVSKIY,
F.M.; MAZEL', S.I.; MIZHERITSKIY, G.S.; NOVIKOV, M.I.; NAZAR'YEV,
O.V.; PCHELKINA, I.A.; RAZUMOV, V.S.; ROZENBLYUM, I.M.; SEROV, B.P.;
SKRYPNIK, T.I.; SAL'VIN, Ye.S.; SMOTRINA, V.F.; TELEPNEVA, N.S.;
FIL'CHAKOV, N.I.; KHRAPUNOVA, Ye.L.; UNDEVICH, G.S.; UR'T'YEV, P.P.;
SHILOV, A.A.; SHLYKOV, A.P.; KIRILLOV, L.M., red.; MARKOCH, M.G.,
tekhn.red.

[Regulations on the construction of municipal telephone network lines]
Pravila po stroitel'stvu lineinykh sooruzhenii gorodskikh telefonnykh
setel. 2.izd. Moskva, Sviaz'izdat, 1962. 511 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo svyazi. Glavnoye upravleniye
kapital'nogo stroitel'stva.
(Telephone lines)

NIKOL'SKIY, kand.tekhn.nauk; KALAKUTSKAYA, N.A., kand.tekhn.nauk; PCHELKIN,
I.M., inzh.; KLASSEN, T.V., inzh.; VEL'TISHCHEVA, V.A., inzh.

Thermal and physical properties of molten metals. Teploenergetika 6
no.2:92-95 F '59. (MIRA 12:3)
(Metals--Thermal properties)

43193

S/855/62/000/000/002/005
E194/E435

AUTHOR: Pchelkin, I.M.

TITLE: Entropy and heat capacity of molten alkali metals

SOURCE: Teploperedacha. Energ. inst. AN SSSR. Ed. by
M.A.Mikheyev. Moscow, Izd-vo AN SSSR, 1962. 22-26

TEXT: The metals Li, Na, K, Rb, Cs appear to form a thermodynamically similar group for which common relationships should be observed for numerous physical properties, probably including entropy. The relationship between the increasing entropy of a single gram-atom of substance when the temperature changes from T_1 to T_2 and the heat capacity is given by the following expression:

$$\Delta S(T) = S(T_2) - S(T_1) = \int_{T_1}^{T_2} \frac{c_s(T) dT}{T} \quad (1)$$

If the thermal capacity c_p in the liquid state is approximately equal to c_v and to c_s , the thermal capacity on the saturation line, the above expression is valid provided that there is no phase change. The expression can be used to

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Entropy and heat capacity ...

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E194/E435

calculate the entropy at the critical temperature for molten metals provided that c_s is known up to the critical temperature. As the necessary measurements have not been made for metals, values of c_s are estimated from assumptions concerning the symmetry of the T-S diagram. The method was used to calculate the τ -S diagram, where τ is the ratio of the temperature to the critical temperature for Li, Na and K; values of the specific thermal capacity, calculated from the diagram, are tabulated. To facilitate general use of the method a criterion is required by which to recognize when the metals are similar and it is proposed to use the increase in entropy on melting for this purpose. A further difficulty is that little information is available about the thermal capacity of molten metals over a wide temperature range. On the basis of existing data the thermal capacity of lithium may be calculated up to 1600°C and for rubidium and caesium up to 800°C. The calculated values are in good agreement with available experimental data. Analysis of error indicates that values of thermal capacity calculated from the diagram in the temperature range for which experimental data are not available for

Card 2/3

Entropy and heat capacity ...

S/855/62/000/000/002/005
E194/E435

Li, Rb and Cs differ from the experimental values by ± 6 to 8% and at temperatures of about 1000°C the error of calculation and of experiment is about the same. There are 3 figures and 6 tables.

Card 3/3

S/058/60/000/009/001/004
A005/A001

// 4100

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 9, p. 150, # 23028

AUTHOR3: Nikol'skiy, N.A., Kulakutskaya, N.A., Pchelkin, I.M., Klassen,
T.V., Vel'tishcheva, V.A.

TITLE: The Thermophysical Properties⁷¹ of Certain Metals and Alloys in
Molten State

PERIODICAL: V sb.: Vopr. teploobmena. Moscow, AN SSSR, 1959, pp. 11-14

TEXT: The designs of experimental units and investigation methods are described in detail, as well as the results from measurements of the coefficients of heat conductivity, heat capacity, kinematic viscosity, and the specific gravity of molten metals and alloys. The results obtained by the Energeticheskoy Institut AN SSSR (Power Engineering Institute of the Academy of Sciences USSR) are compared with the results obtained by other authors. Tables of the thermophysical properties of ¹⁹⁹Hg, molten ¹¹⁹Sn, ²⁰⁸Pb, ²⁰⁹Bi, of the alloy Pb(44.5%)-Bi, ⁶Li, ²³Na, ⁴¹K, and the alloy Na(75%)-K for a wide temperature range are presented. There are 41 references.

T.V. Zakharova

Translator's note: This is the full translation of the original Russian abstract.
Card 1/1

PEHELIN, I.M.

24(8)

2.2-1

PHASE I BOOK EXPLOITATION

SOV/3501

Akademiya nauk SSSR. Energeticheskiy institut

Voprosy teploobmena (Heat-Exchange Problems) Moscow, 1959. 237 p. Errata slip inserted. 2,800 copies printed.

Resp. Ed.: M.A. Mikheyev, Academician; Ed. of Publishing House: G.B. Gorshkov;
Tech. Ed.: I.F. Kuz'min.

PURPOSE: This collection of articles is intended for scientific workers, engineers, and postgraduate students specializing in thermodynamics.

COVERAGE: The collection reviews problems of heat transfer and explores possibilities of intensifying heat exchange. The heat exchange theory is outlined, and Russian scientists who contributed to its development are mentioned. Thermo-physical properties of some molten metals and alloys are analyzed, and methods used to determine them presented. Equipment used for measuring thermal conductivity, heat capacity, and kinetic viscosity of these metals are discussed. Results of experimental study of the intensified heat exchange for a water flow in an annular channel are analyzed and the instruments used along with the pilot plant for studying convection heat exchange in contacting nonmiscible fluids are described. Instruments and equipment used for determining the linear expansion

Card 1/4

Heat-Exchange Problems

SOV/3501

- Deryugin, V.M., and O.S. Fedynskiy. Convection Heat Exchange in a Direct Contact of Nonmiscible Fluids 67
- Kirillov, P.L., V.I. Subbotin, M.Ya. Suvorov, and M.F. Troyanov. Study of Heat Transfer to Sodium-Potassium Alloy in a Pipe 80
- Kondrat'yev, N.S. Average Heat Transfer for a Turbulent Flow of Eutectic Bismuth - Lead Alloy in Short Pipes 96
- Ivanovskiy, M.N. Accelerated Method for Determining the Coefficient of Average Heat Transfer in a Pipe 100
- Adrianov, V.N. Application of Electroanalogy to the Solution of Problems of Radiant Heat Exchange 113
- Lel'chuk, V.L. and B.V. Dyadyakin. Heat Transmission From a Wall to a Turbulent Air Flow in a Pipe and the Hydraulic Resistance at High-Temperature Pressure Heads 123
- Minashin, M.Ye., V.I. Subbotin, P.A. Ushakov, and A.A. Sholokhov. Utilization of a Microthermocouple in Studying Heat Transfer 193
- Card 3/4

Heat-Exchange Problems

SOV/3501

<u>Pchëlkin, I.M.</u> Instrument for Determining the Coefficient of Linear Expansion of Metals	200
Korotkov, Yu.A. Unit for Metallization Carried out by Sublimation of Metals in a Vacuum	202
Korotkov, Yu.A. Instrument for Measuring the Consumption of a Liquid	206
Buleyev, N.I. Distribution of Velocity and Temperature for a Turbulent Liquid Flow in a Circular Pipe	208
Khrustalev, B.A. Instrument for Determining the Absorption Capacity of a Surface	233

AVAILABLE: Library of Congress

Card 4/4

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SOV/96-59-2-16/18

The Thermal Physical Properties of Molten Metals

determine some of the properties are briefly described and a diagram of the apparatus for measuring the specific gravity of molten metal by a volumetric method is given in Fig 1 and the apparatus for the displacement method in Fig 2. The equipment used for determining the thermal conductivity of molten metal is shown in Fig 3 and a further method in Fig 4. The equipment for determination of the specific heat of molten metal is shown in Fig 5. There are 5 figures and 12 references of which 7 are Soviet, 3 German, 1 English and 1 French.

Card. 2/2

PCHELKIN, M., inzh.

МОРСКОЙ ФЛОТ

Port Abidjan. Mor.flot 21 no.3:43-44 Mr '61.

(MIRA 14:6)

1. Soyuzmorniiprojekt. *St. C. Planning & SRI for Maritime Transport*
(Abidjan--Harbors) *in Abidjan (LWS)*

MONAKHOV, N.I., inzh., glavnyy red.; TURLANSKIY, M.A., inzh., zamestitel'
glavnogo red.; PCHELKIN, M.G., inzh., red.; KHAVIN, B.N., red.
izd-va; ZUKINA, Y.M., tekhn.red.; GILKINSON, P.G., tekhn.red.

[Collection no.20 of consolidated indices on costs of marine,
river, harbor, navigational and shipbuilding structures and
buildings for use in the reappraisal of capital assets] Sbornik
no.20 ukрупnennykh pokazatelei stoimosti morskikh i rechnykh
portovykh, sudokhodnykh i sudostroitel'nykh sooruzhenii i zdanii
dlia pereotsenki osnovnykh fondov. Moskva, Gos.izd-vo lit-ry po
stroit., arkhitekt. i stroit.materiam, 1959. 154 p. (MIRA 13:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam
stroitel'stva.

(Hydraulic engineering--Indexes) (Building--Estimates)

PCHELKIN, N. V., REZNIK, B. Ye.

"Photometric Determination of Copper and Molybdenum According to
Their Catalytic Action

submitted at the Conference on Kinetic Methods of Analysis, Ivanovo,
14-16 June 1960

So: Izvestiya Vysshikh Uchebnykh Zavedeniy SSSR, Khimiya i Khimicheskaya
Technologiya, Vol III, No 6 Ivanovo, 1960, pages 1113-1116.

PAPUSHEV, P.I., SCHELKIN, S.A.

Influence of certain factors on the cooling of cast-iron during
solidification and sashling. Izv. Vuzov. Mashinostroyeniye. 1964, No. 4, p. 45-46.

1. Koryshevskiy zheleznyy kombinat, zavod "Dobrye kolyba".

PCHELKIN, S. M. i TEL'PUGOV, P. S.

19972 PCHELKIN, S. M. i TEL'PUGOV, P. S. Podgotovka kadrov v sakharney promyshlennosti v. 1948 g. Sakhar. prom-st', 1949, No. 6, s. 9-11.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

PCHELKIN, V.

PA 28/49T20

USSR/Engineering
Generators, Gas
Automobiles

Oct 48

"Test Results of the Type DG-13 'Komsomolets' Gas
Generator," V. Pchelkin, Engineer, $\frac{1}{2}$ p

"Automobil'" No 10

In 1941, workers at the Nizhneudinsk station (East
Siberian RR) installed subject model gas generator on
ZIS-5 automobile. Performance was satisfactory. Re-
sults of operating this generator at other enterprises
of the railroad showed that it performed better than
ZIS-21.

YLB

28/49T20

Pchelkin, V. A.

USSR/Chemistry - Inorganic

FD-1148

Card 1/1 Pub. 129-12/23

Author : Yefimov, A. F.; Pchelkin, V. A.; Lapitskiy, A. V.

Title : Lead salts of tantallic and niobic acids

Periodical : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, 9, No 7, 97-101, Oct 1954

Abstract : Synthesized and determined the composition of the following two compounds: $Pb-Nb_{12}O_{37} \cdot 23H_2O$ and $Pb-Ta_{12}O_{38} \cdot 33H_2O$. Complete dehydration of the two salts takes place at 200 and 500 degrees, respectively. Determined the solubility of the salts at 25 degrees by the tracer atom method. Six references (three USSR).

Institution : Chair of Inorganic Chemistry

Submitted : December 31, 1953

POCHEKIN, V. A.

YEFIMOV, A.F.; PCHELKIN, V.A.; SIMANOV, Yu.P.; ARTAMONOVA, Ye.P.;
LAPITSKIY, A.V.

Lead meta-niobate and lead meta-tantalate. Vest.Mosk.un. 9 no.6:
77-80 Je '54. (MLRA 7:8)
(Lead niobate) (Lead tantalate)

PCHELKIN, V. A.

USSR/ Chemistry Synthesis methods

Card : 1/1 Pub. 151 - 3/33

Authors : Pchelkin, V. A., Efimov, A. F., and Lapitskiy, A. V.

Title : Niobates and tantalates of alkali-earth metals. Part 1- Metaniobates and metatantalates of Ca, Sr and Ba.

Periodical : Zhur. ob. khim. 24/8, 1284 - 1286, August 1954

Abstract : Various anhydrous Sr and Ba metaniobates and Ca, Sr and Ba-metatantalates were synthesized and their chemical properties investigated. It was established that all synthesized salts as well as the calcium metaniobate were thermally stable and showed no noticeable volatility even in vacuum. The specific electrical conductivity of the saturated solutions of the anhydrous metaniobates and metatantalates of alkali-earth metals, measured at 20°, is shown in table. Five references: 2 USSR, 2 German and 1 USA (1875 - 1954).

Institution : State University, Moscow

Submitted : January 3, 1954

V. A. Pchelkin, A. P. Efremov, and A. V. Likhachev
U.S.S.R. 25, 1974 (1974) — (H)
See C.A. 49, 1434. B. M. R.

POHELKIN V.A.

USSR/Chemistry

Card 1/1 : Pub. 151 - 4/42

Authors : Pchelkin, V. A.; Efimov, A. F.; and Lapitskiy, A. V.

Title : Niobates and tantalates of alkali earth metals. Part 2.-

Periodical : Zhur. ob. khim. 24/9, 1495-1498, Sep 1954

Abstract : The derivation of hitherto unknown hexaniobates and hexatantalates of various types of alkali earth metals is described. The specific electrical conductivity of hexaniobate and hexatantalate solutions saturated at 20° was determined. It was established that the above mentioned salts of alkali earth metals become thermally unstable at temperatures exceeding 400°. Seven references: 3-USSR; 2-USA; 1-German and 1-Indian (1905-1952). Table.

Institution : State University, Moscow

Submitted : January 3, 1954

PEHELKIN, V. A.

Investigation of solubility of hexanobates of some bivalent metals. V. A. Pchelkin and A. V. Lapitskii. *Vestnik Moskov. Univ. H. No. 3, Ser. Fiz.-Mat. i Estestv. Nauk* No. 2, 81-8 (1958); cf. *C.A.* 49, 4423a. The solubilities of the hexanobates at 20° were studied with the use of Nb^{99} . $\text{Na}_2\text{Nb}_2\text{O}_7 \cdot 32\text{H}_2\text{O}$ (I), was added in aq. soln. to $\text{Be}(\text{NO}_3)_2$ or $\text{Mg}(\text{NO}_3)_2$. The white ppts. were filtered off, washed carefully with H_2O , air-dried, and analyzed for metal oxide (Be calcd. by difference), Nb_2O_5 , and H_2O . H_2O was detd. by heating at 750-800°. Probable formulas are $\text{Be}_2\text{Nb}_2\text{O}_7 \cdot 52\text{H}_2\text{O}$ and $\text{Mg}_2\text{Nb}_2\text{O}_7 \cdot 44\text{H}_2\text{O}$. Nb^{99} in the form of an osalate soln. was checked for half-life value. Radioactive Nb_2O_5 was fused with NaOH and the excess NaOH removed. Radioactive I soln. was stirred with nitrate solns. of bivalent metals for 3-7 hrs. Samples were withdrawn and centrifuged. Clear liquid (1-5 ml.) was transferred to an Al dish, evapd. at 100° in an oven, and measured with a counter. The activity of the I soln. was similarly measured. Relative error of measurement was 4-5%. Av. values of solubilities of anhyd. hexanobates were: Be 1.8×10^{-4} , Mg 8.8×10^{-4} , Ca 4.7×10^{-4} , Sr 2.3×10^{-4} , Ba 1.9×10^{-4} , and Pb 2.4×10^{-4} . The data confirm the conductometric data. Kurilla-Mayerle

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Chin, Heng, Chen

PCHELKIN, V. A.

The investigation of dehydration processes of some niobates: A. V. Lapitskii, V. A. Pchelkin, and Vikt. I. Spitsyn (M. V. Lomonosov Moscow State Univ., *Doklady Akad. Nauk S.S.S.R.* 103, 1265-1267 (1955)). - The dehydration of Na and K hexaniobates, hydrated $KNbO_3$, and Be, Mg, Ca, Sr, Ba, and Pb hexaniobates was studied by heating the salts and plotting the loss of water, and by dehydration over concentrated H_2SO_4 . The existing ideas regarding the structures of the niobates (C.A. 31, 332) do not seem to be correct. Five to six H_2O moles. are probably connected with the aquapoly-niobate nuclei, and participate actively in their structure. The last 1-2 moles. of H_2O must be especially important in the formation of the niobate-water complexes.

W. M. Sternberg

3
Chem Inorganic Chemistry

7

PM

Pchelkin, V.A.

USSR/Inorganic Chemistry. Complex Compounds.

C

Abs Jour : Referat. Zhurnal Khimiya. No 6, 1957, 18844

Author : V.A. Pchelkin, A.V. Lepitskiy, V.I. Spitsyn

Inst : -

Title : Study of Isotopic Interchange Among Salts of Niobic Acid of Various Types.

Orig Pub : Zh. Neorgan. Khimii, 1956, 1, No 4, 841-851

Abstract : Using Nb^{95} , the isotopic interchange in the heterogeneous system of $K_{14}Nb_{12}O_{37} \cdot 27H_2O$ (I) and $KNbO_3 \cdot 2H_2O$ at 20° was studied. The interchange between the precipitates I and II and saturated solutions of I and II occurs practically instantly in the amount of 60% and does not increase further in the course of time. The solubility of I in the saturated solution of II is 0.0423 g/ml at 20° . Taking into consideration the constancy of the refraction indices of the initial niobates and of the bottom phases, the authors conclude that I and II do not interact one

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-23-

MERZLOV, V.P.; PCHELIN, V.A.

Role of ionogenic groups in conformation conversions of elatin.
Dokl. AN SSSR 156 no. 3:61-66 1964. (MI A 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavleno akademikom P.A. Rebinderom.

KANEVSKIY, Ye. A.; PCHELKIN, V.A.

Effect of surface-active substances on the rate of solution of
calcite in acids. Kin. 1 kat. 2 no.2:188-191 Mr-Apr '61.

(Surface active agents)
(Calcite)

(MIRA 14:6)

KANEVSKIY, Ye.A.; PCHELKIN, V.A.

Activation energy from the dissolution of uranium dioxide in sulfuric acid with manganese dioxide as an oxidizer. Atom. energ. 11
no.6:549-550 D '61. (MIRA 14:11)
(Uranium oxide) (Manganese oxide) (Sulfuric acid)

PCHELIN, V.A.

"Colloid chemistry" by A.G. Pasynskii. Reviewed by V.A. Pchelin.
Koll.zhur. 23 no.4:509 J1-Ap '61. (MIRA 14:8)
(Colloids) (Pasynskii, A.G.)

GRIGOR'YEVA, N.V.; PCHELIN, V.A.; REBINDER, P.A.; akademik

Effect of tanning agents on the structure of gelatin solutions.
Dokl. AN SSSR 139 no.6:1403-1404 Ag '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy institut mekhovoy promyshlennosti
pri Vserossiyskom Sovete Narodnogo Khozyaystva RSFSR i
Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Tanning) (Gelatin)

21115
S/089/61/011/006/013/014
B101/B102

214300

AUTHORS: Kanevskiy, Ye. A., Pchelkin, V. A.

TITLE: Activation energy of uranium dioxide dissolution in a sulfuric-acid medium in the presence of manganese dioxide

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 549-550

TEXT: Starting from the widespread use of pyrolusite in leaching uranium from ores by sulfuric acid, the authors studied the activation energy of the process $UO_2 + MnO_2 + 2H_2SO_4 \rightarrow UO_2SO_4 + MnSO_4 + 2H_2O$. The influence of temperature was investigated between 20 and 80°C. UO_2 obtained by reduction of U_3O_8 by hydrogen at 900°C was used. It contained 98% of U(IV) related to U(IV) + U(VI). Particle size of initial oxides did not exceed 0.074 mm. Temperature, ratio $UO_2 : MnO_2$, and time of test were altered. It was found that the amount of dissolved UO_2 at 20°C increased linearly with time if there was an MnO_2 excess (after 2 hr approximately 8% with $MnO_2 : UO_2 = 5 : 1$; approximately 14% at a ratio of 25 : 1; about

Card 1/2

SPITSYN, Vikt.I., akademik; PCHELKIN, V.A.; GONCHAROV, I.V.

Effect of surface active agents on the solution kinetics of calcium carbonate in mineral acids. Dokl.AN SSSR 137 no.5:1158-1161 Ap '61. (MIRA 14:4)

(Surface active agents) (Calcium carbonate)
(Solution (Chemistry))

S/189/60/000/006/002/004
B130/B229

AUTHORS: Lapitskiy, A. V., Nishanov, D., Pchelkin, V. A.

TITLE: Structure of niobates and tantalates

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 2, khimiya, no. 6,
1960, 18-23

TEXT: The possibility of setting up a general structural formula for poly-aqua compounds of niobium and tantalum is discussed. Water is able to form hydrogen or hydroxyl bonds in crystals. The thermal dehydration of salts was studied by the authors, and they found that a great part of the water, (approximately 75%) splits off at 80-120°C. The residual amounts can be removed only very slowly, and a complete dehydration can only be obtained at a sufficiently high temperature: 300-400°C for tantalates, 400-500°C for niobates. The thermograms of all salts show that thermal dehydration is accompanied by endothermic or exothermic effects. The Debye patterns of the salts dehydrated to different degrees differ from each other. The Debye patterns of air-dried salts are characterized by lines of different intensity; those of partly dehydrated salts show a distinct diffusion picture,

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S/189/60/000/006/002/004
B130/B229

Structure of ...

whilst completely dehydrated salts show the simple lines of meta salts. This indicates that in the course of dehydration, the crystal lattice of the initial salt is destroyed and a lattice of the dehydrated meta salt is formed. The data given by the authors, and also by Ye. I. Krylov and Yu. I. Alekseyev in ZhOKh, 24, 1921, 1954; and ZhOKh, 25, 1052, 1955 on the dehydration of different niobates and tantalates show that by an increase of the number of central atoms (niobium and tantalum), the bonding strength of water in the anion is increased. The number of molecules remaining bound in the salt above 100°C is constant, and half a molecule of water goes to one atom of niobium (tantalum) in the anion. According to A. F. Kapustinskiy and A. A. Shidlovskiy (Izv. Sektora plat. blagor. metallov, No. 30, 44, 1955), the water also forms an outer layer around the metal atoms. Bridges are formed between the O-atoms of the water and the O-atoms of the metal (molybdenum) by means of the H-bond. The water bound in the polyaquacompounds is bound not only to the cations but also to the anions. The water molecules surrounding the cations form polyhedra. The amount of water depends on the ionic radius and the polarizing effect of the cation. The water which is split off most easily belongs to the outer sphere of the salt. The firmly bound water is bound in the anions. The bond between the

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Structure of ...

S/189/60/000/006/002/004
B130/B229

atoms of the metals (Nb; Ta) results from H-bonding. The structure of the analyzed niobates or tantalates can be explained by the behavior of water in dehydration. The general formula reads: $Me_x[(H_2O)_2 \cdot nH_2O] \cdot mH_2O$, where $Me = Nb, Ta$; $Me = Li, Na, K$ etc; $n = 1-5$; $x = 4, 16$; mH_2O is the part of water which coordinates around the cations. V. I. Spitsyn, M. L. Fridman, S. S. Babanov, and A. Ye. Von-Arkel' are mentioned. There are 5 tables and 26 references: 14 Soviet-bloc and 12 non-Soviet-bloc.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet, Kafedra radiokhimii
(Moscow State University, Department of Radiochemistry)

SUBMITTED: April 29, 1959

Card 3/3

LAPITSKIY, A.V.; NISHANOV, D.; POZDNIKOV, V.A.

Structure of niobates and tantalates. Vest. Mosk. un. Ser. 2: Khim.
15 no.6:18-23 N-D '60. (MIRA 14:2)

1. Kafedra radiokhimii Moskovskogo universiteta.
(Niobates) (Tantalates)

KANEVSKIY, Ye.A.; PCHELKIN, V.A.

Interaction between solid UO_2 and MnO in a sulfuric acid solution.
Atom. energ. 10 no.2:138-142² '61. (MIRA 14:1)
(Uranium oxide) (Manganese oxide)

89354
S/089/61/010/002/004/018
B102/B209

21.33.00
AUTHORS:

Kanevskiy, Ye. A., Pchelkin, V. A.

TITLE:

On the interaction between solid UO_2 and MnO_2 in sulfuric acid solution

PERIODICAL: Atomnaya energiya, v. 10, no. 2, 1961, 138-142

TEXT: The widely spread use of pyrolusite in the extraction of uranium from ores by means of sulfuric acid, wherein pyrolusite undoubtedly plays the role of an oxidizer, makes it necessary to investigate carefully the mechanisms of $UO_2 - MnO_2$ reactions and the effects thereon as exerted by degree of mixture, component ratio, H_2SO_4 concentration, pre-extraction of oxides, etc. So far, these problems have been studied only generally in the frame of uranium extraction processes; the present paper devotes to them a special treatise. The mentioned reaction mechanism is usually written as $UO_2 + MnO_2 + 2H_2SO_4 \rightarrow UO_2SO_4 + MnSO_4 + 2H_2O$ or as $UO_2 + MnO_2 + 4H^+ \rightarrow UO_2^{2+} + Mn^{2+} + 2H_2O$. Experimental checking of this equation showed that the molar

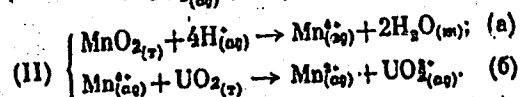
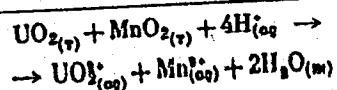
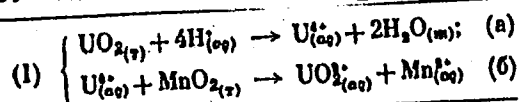
Card 1/5

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B102/B209

On the interaction ...

ratio of the two components was equal to unity. This equation was taken as basis of the further investigations. It may be assumed that first, one of the oxides is dissolved in the acid medium and that then a heterogeneous redox-process takes place. In this case, the UO_2 - MnO_2 reaction is described by I or II.



However, it may also be assumed that UO_2 is dissolved first, and then MnO_2 , and that then the hexa- and tetravalent uranium ions homogeneously enter the reaction:

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On the interaction ...

is another possible reaction. [Abstracter's note: The subscript (T) indicates the solid, the subscript (L) the liquid phase]. Also some other facts speak in favor of the latter possibility so that the process IV appears to be the most probable one; however, the others must not be excluded. Moreover, the effect of the surface condition of the reacting components upon the reaction mechanism was studied. UO_2 and MnO_2 were powdered, put into reaction in 0.5 N H_2SO_4 at 20°C (4 hrs.), and the degree of reaction was determined on various conditions. Grinding of the two oxides, in particular simultaneously, showed to stimulate the reaction considerably (unground: 12%, separately ground: 45%, simultaneously ground: 83%) which again speaks for IV. However, radiographic examinations showed that UO_2 and MnO_2 in the form of a dry powder mixture practically do not react (20.1%). An investigation as to whether the solid-to-liquid ratio affects the degree of reaction gave a negative result (the degree of reaction remained practically unchanged from 1:1 to 1:20). Thus, all experimental data favor IV upon which process, above all, steric factors exert an influence. Finally, the effect of iron ions was examined with the

Card 4/5

PCHELKIN, V.A.; LAPITSKIY, A.V.; SPITSYN, Vikt.I.; SIMANOV, Yu.P.

Thermography and radiography of the dehydration of hexaniobates
of certain bivalent metals. Zhur.neorg.khim. 1 no.8:1784-1793
Ag '56. (MLRA 9:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova,
Kafedra neorganicheskoy khimii.
(Dehydration) (Niobates)

PCHELKIN, V.A.

The solubility of the most common of some bivalent metals. A. V. Lapitskii and V. A. Pchelkin. Vestnik Mosk. Univ. II No. 5, 1956, 1956, No. 3, 20-74. — The solubility of the most common of Be, Mg, Ca, Sr, Ba, and Pb was detd. at 20° by means of a gravimetric method. The soly. consts. were calcd. to be 1.2×10^{-10} , 2.5×10^{-10} , 3.8×10^{-10} , 4.2×10^{-10} , 3.2×10^{-10} , and 2.4×10^{-10} , resp. I. Rostov-Lesch

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Chin Inorg. Chem.

PCHIKIN, V.A.; LAPITSKIY, A.V.; SPITSYN, Vikt.I.

Study of the isotopic exchange between various salts of niobic acid.
Zhur. neorg. khim. 1 no.4:841-851 Ap '56. (MLRA 9:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Niobates) (Niobium--Isotopes)

SPITSYN, Vikt. I.; LAPITSKIY, A.V.; AISTOVA, R.I.; NISHANOV, D.; PCHELKIN, V.A.

Study of isotopic exchange of oxygen between heavy-oxygen water
and some niobates and tantalates. Dokl. AN SSSR 118 no.1:107-109 '58.
(MIRA 11:3)

1. Institut fizicheskoy khimii Akademii nauk SSSR i Moskovskiy
gosudarstvennyy universitet im. M.V.Lomonosova. 2.Chlen-korrespondent
AN SSSR (for Spitsyn)
(Oxygen--Isotopes) (Niobates) (Tantalates)

Pchelkin, V.A.

AUTHORS: Spitsyn, Vikt. I., Corresponding Member of the AN USSR, 20-1-30/58
Lapitskiy, A. V., Aistova, R. I., Nishanov, D., *Pchelkin, V. A.*

TITLE: Studies of the:
Isotopic Exchange of Oxygen Between Heavy-Oxygen Water and Some Niobates and Tantalates (Izucheniye izotopnogo obmena kisloroda mezhdutyazhelokislorodnoy vodoy i nekotorymi niobatami i tantalatami).

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 1, pp. 107-109 (USSR).

ABSTRACT: Individual authors (references 1-8) ascribe different structures to the niobates and tantalates. In several cases the part played by the water and the position of the water are not taken into account. All pertinent papers except references 9, 10 deal with the character of the binding between the central atom and the oxygen atoms. In the paper by Spitsyn, Aistova and Vasilyev (reference 12) the method of isotopic exchange which was also employed by the authors in the present paper was employed in the investigation of another binding. In the tests they used water enriched with O^{18} (1,28 atom-% O^{18}). The exchange was carried out at 95°C in saturated solutions of these salts: sodium-penta- and hexa-tantalate, as well as potassium-hexa- and niobate. The duration of test was 5 hours. By hydrolysis the solutions had an alkaline reaction (pH = 11-12). The method was described in the above-mentioned paper (reference 12). Table 1 records

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Studies of the:

Isotopic Exchange of Oxygen Between Heavy-Oxygen Water and Some 20-1-30/58
Niobates and Tantalates.

the test results together with the calculated values of the O^{18} -content in the solvent after the completed exchange. From this may be seen that not only the oxygen of the water bound in the tantalates enters into the isotopic exchange, but also the entire oxygen from their anions. Further all experimental values of O -content in water were much smaller than the calculated ones. These deviations lie outside the experimental error. These results may be explained by the fractionation of the oxygen-isotope which proceeds in the direction of the enrichment of the salt with heavy isotope (references 12,14). As follows from table 2, a complete exchange of oxygen from the water, as solvent, and from the anions of these salts also takes place in the case of potassium-hexy- and -meta-niobate. But no enrichment of the salt with heavy oxygen-isotope takes place here. This difference is apparently brought about due to a higher molecular weight of the niobates as compared with the tantalates. As regards the tantalates investigated, in this respect they approach the aquo-poly-tungstates. Thus all oxygen atoms of the above-mentioned 4 salts and combined water are accessible to the isotopic exchange with water as a solvent. The equilibrium is comparatively early attained (within 5 hours).

Card 2/3

There are 2 tables, and 14 references, 7 of which are Slavic.

Studies of the:

20-1-30/58

Isotopic Exchange of Oxygen Between Heavy-Oxygen Water and Some Niobates and Tantalates.

ASSOCIATION: Institute for Physical Chemistry AN USSR (Institut fizicheskoy khimii Akademii nauk SSSR).

Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova).

SUBMITTED: July 25, 1957.

AVAILABLE: Library of Congress.

Card 3/3

USSR/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30329

Author : Lapitskiy, A.V., Spitsyn Vikt.I., Pchelkin, V.A.,
Simsnov, Yu.P.

Inst :

Title : Thermographic and Roentgenographic Study of the Process
of Dehydration of the Niobates of Sodium and Potassium.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 8, 1776-1783

Abst : Study of the process of dehydration of hexa- and metanio-
bates: $\text{Na}_4\text{Nb}_2\text{O}_{17} \cdot 32\text{H}_2\text{O}$ (I), $\text{K}_4\text{Nb}_2\text{O}_{17} \cdot 27\text{H}_2\text{O}$ (II),
 $\text{NaNbO}_3 \cdot 3.5\text{H}_2\text{O}$ (III) and $\text{KNbO}_3 \cdot 2\text{H}_2\text{O}$ (IV), by means of a
continuous operation balance, a McBain balance and a
Kurnakov pyrometer. The existence of the following hy-
drates was confirmed: of I with 6, 4 and 2 molecules
of H_2O , in the respective temperature ranges, 80-115°,

Card 1/2

USSR/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30329

200-225° and 300-320°; of II with 9 (?), 6, 4 and 2 molecules of H_2O , the region of stability of the noni-hydrate being very limited, while the other hydrates were detected at 120, 180 and 300-350°, respectively; of III with 1 molecule of H_2O at 80°, and with 0.5 H_2O in the range 100-120°; of IV with 0.36 and with 0.2 H_2O , at 100 and 160°, respectively. Roentgenograms of I, II, III and IV show a large number of lines. The intermediate hydrates formed during dehydration differ, in their crystalline form, from the initial salts and are characterized by fine dispersion. After complete dehydration of I, II, III and IV, the roentgenograms show the sharp lines of anhydrous $NaNbO_3$ and $KNbO_3$.

Card 2/2

Pchelkin, V.A.
 USSR/Thermodynamics. Thermochemistry. Equilibria. Physico-Chemical B-8
 Analysis. Phase Transitions.

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, № 2616:

Author : V.A. Pchelkin, A.V. Lapitskiy

Inst : Moscow University

Title : Study of Solubility of Hexaniobates of Some Bivalent Metals.

Orig Pub : Vestn. Mosk. un-ta, 1956, No 3, 81-86

Abstract : The solubility in water of hexaniobates of elements of the main subgroup of the II group of the periodic system of Mendeleev was studied at $20 \pm 0.1^\circ$ by the method of radioactive indicators, and the data of the solubility of lead hexaniobate were rendered more precise. The synthesis of hexaniobates of Be, Mg, Ca, Sr and Ba was carried out by the earlier described methodics (RZhKhim, 1955, 20972) by the interchange reaction between the solution of sodium hexaniobate obtained on the basis of the radioactive pentoxide of niobium and the solution of the nitrate of the

Card : 1/2

Решеткин, В.А.

USSR/Thermodynamics. Thermochemistry. Equilibria. Physico-Chemical B-8
Analysis. Phase Transitions.

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26164

Author : A.V. Lapitskiy, V.A. Pchelkin

Inst : Moscow University

Title : Study of Solubility of Metaniobates of Some Bivalent Metals

Orig Pub : Vestn. Mosk. un-ta, 1956, No 5, 69-74

Abstract : The solubility (S) of metaniobates of Be, Mg, Ca, Sr and Ba at 20° was measured using radioactive indicators Nb⁹⁵ Sr⁸⁹ in extension of previous research (RZhKhim, 1955, 5447). S. of metaniobates decreases from Be(NbO₃)₂ to Sr(NbO₃)₂ and again increases noticeably at the transition to Ba(NbO₃)₂, which is in accordance with the increase of electrical conductivity observed previously. Also the S of Pb(NbO₃)₂ at 20° was rendered more precise and the solubility products of the metaniobates under study were computed.

Card : 1/1

PCHELKIN, V.G.

Diagram for drainage and supplying water for fire fighting in lowland peat
deposits. Torf.prom. 30 no.9:19-20 S '53. (MIRA 6:8)
(Peat bogs)

USSR/Soil Science. Mineral Fertilizers

J-5

Abstr Jour : Ref Zhur - Biol., No 20, 1958, No 91455

Author : Pechelkin V.U.

Inst :

Title : The Use of Potash Fertilizer in the USSR

Orig Ins : Usobreniya i ur zash., 1958, No 11, 26-31

Abstract : According to data from various state institutes and experimental stations; the application of potash fertilizer in doses of 45 - 60 kg/ha K_2O for grain cultures, over 60 kg/ha for intertilled and 90 kg/ha for commercial cultures (sugar beet, hemp, rustic tobacco and vegetables) yields the following augmentation of harvest: grain 1.5 - 2.5 centners/ha, potatoes 15-20 centners/ha, sugar beet 10-30 centners/ha, perennial grass 9-15 centners/ha etc. The effectiveness is higher on podzol soils, than on black soils. It is necessary, however, to lime acid podzol soils in order to avoid a strengthening of the concentration of the soil solution and

Card : 1/1 of the mobility of of sesqui-oxides. -- B.D. Mogilan

1. PCHELKIN, V. U.: BODROVA, Ye. M.
2. USSR (600)
4. Fertilizers and Manures
7. Preparation and application of organic-mineral granulated fertilizers.
Dost. sel'khoz. No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

USSR/Soil Science. Organic Fertilizers.

J-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24760.

Author : Kevorkov, A.P.; Pchelkin, V.U.

Inst :

Title : On the Application of Manure-Lime Composts and
Organic-Lime Mixtures.

Orig Pub: Udobreniye i urozhay, 1957, No 3, 43-45.

Abstract: Application of 10% of lime from a calculation of dry compost substance, composed of 85% of manure and 15% of straw with the addition of 10 kilog. of superphosphate for one ton of compost, during a 3 month storage, reduced the loss of nitrogen from 40.5 to 22.6%. In identical doses for winter rye, a compost with 10% lime gave an increase of 3.2 c/ha. of grain, but only 1.5 c/ha. without lime. A mixture,

Card : 1/2

Pchelkin, V.U.

USSR/Cultivated Plants. Potatoes. Vegetables. Melons

M-5

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1559

Author : V.U. Pchelkin

Inst : All-Union Institute of Fertilizers, Soil Science, and Agricultural Engineering

Title : Methods of Efficient Application of Potash Plus Organic Fertilizers.

Orig Pub : Udobreniye i urozhay, 1956, No 7, 40-45

Abstract : According to findings made at the VTUAA [All-Union Institute of Fertilizers, Soil Science, and Agricultural Engineering], when K combined with compost in a ratio of 1 : 4 and 1 : 50 is applied locally beneath potatoes, the effectiveness of potash fertilizer is considerably increased. The addition of 0.5 to 2% KCl to liquid turf composts increases the ammoniacal N content considerably, decreases losses in overall N, and boosts the effectiveness of the composts. It is indicated that a possible reason for the mounting effectiveness of potash fertilization, when it is used in combination with organic fertilizers, is the reduction of K fixation by the soil.

Card : 1/1

PCHNIKIN, V. U.

"Conditions of the potassium mobility in non-carbonatic soils"

Pochvovedeniye, No. 10, 1946.

ICHELKIN, V. U.

Significance of granulated fertilizers in the increasing of crop yields. Moskva, "Znanie," 1954. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniu politicheskikh i nauchnykh znani. Seriya 5, no. 1)

1. Fertilizers and manure.

1. PCHILKIN, V. U.: OZOLINA, Z. D.
2. USSR (600)
4. Compost
7. Using compots to increase the yield of farm crops. Dost. sel'khoz., no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

121

15

On the mobility of potassium in carbonate-free soils.
V. U. Fchelkin, *Pedology* (U.S.S.R.) 1966, 604-14
(in Russian). - Chernozem, when freed of its org. matter
by H_2O_2 treatment, had a reduced capacity for K fixation.
It is pointed out that the membrane gels coating the crude
mineral particles are the seat of the nutrients and they det.
the mobility and availability of K. J. S. Joffe

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

6A

Fixation of potassium by soils and the availability of the fixed potassium for plants. V. I. Pchelkin and S. M. Koslova. *Chemization Socialisticheskoy S. S. R.* 9, No. 11-12, 73-8(1940); *Chem. Zentr.* 1941, II, 654. -K in the form of bicarbonate is more strongly adsorbed by the soil than that in the form of chloride. The addn. of NaCl increases the fixation of K by the soil. It is more finely fixed by chernozem than by podzolic loam. Obviously the organo-mineral colloids are important in the fixation of K. Sand-culture expts. indicated that fixed K is practically unavailable for the flax plant; not only was the absorption of K by the plant reduced but its growth was likewise essentially affected. M. G. Moore

ASB-5.5.6 DETAILING/ICAL LITERATURE CLASSIFICATION

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PCHELKIN, Yu.G., inzh. (Kiyev)

Reverse matrix of three-member systems of equations. Issl. po
teor. sooruzh. no.10:253-256 '61. (MIRA 14:8)
(Linear equations) (Structures, Theory of)

SOV/124-57-3-2920

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 41 (USSR)

AUTHOR: Pchelkin, Yu. M.

TITLE: Investigation of the Operation of the Combustion Chamber of a Solid-fuel Gas-turbine Engine (Issledovaniye raboty kamery sgoraniya gazoturbinnogo dvigatelya na tverdom toplive)

PERIODICAL: Sb. statey Mosk. vyssh. tekhn uch-shcha, 1955, Nr 39, pp 67-80

ABSTRACT: A study is made of the flow in a cylindrical fire tube. By using data obtained from other sources concerning the duration of combustion of solid-fuel particles, the author determines the length required for the combustion chamber. Bibliography: 4 references.

I. S. Simonov

Card 1/1

POHILKIN, Yu.F., kand. tekhn. nauk, docent; ROZHDESTVENSKIY, A.M., inzh.

Experimental investigation of a turbocyclone gas purifier.

Izv. vys. ucheb. zav.; mashinostr. no.2:106-110 '64.

(MIRA 17:5)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni
Baumana.

POHELKIN, Yu. M.

"An Investigation of the Operating Process of a Gas-Turbine Engine,
Pulverized-Coal Combustion Chamber." Cand Tech Sci, Moscow Order of
Labor Red Banner Higher Technical School imeni Bauman, 20 Dec 54. (VN, 9 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (12)
SO: Sum. No. 556 , 24 Jun 55